

METHOD FOR THE PREPARATION OF A POLY(ARYLENE ETHER)-
POLYOLEFIN COMPOSITION, AND COMPOSITION PREPARED THEREBY

ABSTRACT OF THE DISCLOSURE

[0108] A poly(arylene ether)-polyolefin composition is prepared by melt-blending a poly(arylene ether), a poly(alkenyl aromatic) resin, a hydrogenated block copolymer of an alkenyl aromatic compound and a conjugated diene, and an unhydrogenated block copolymer of an alkenyl aromatic compound and a conjugated diene to form a first blend, and melt-blending the first blend and a polyolefin and additional hydrogenated block copolymer to form a second blend. A reinforcing filler and/or an ethylene/alpha-olefin elastomeric copolymer may, optionally, be added during formation of the second blend or in an additional step. Multiple mixing elements, low throughput, and high extruder rotations per minute may be used to achieve high energy mixing of the first and second blends. Compositions prepared by the method exhibit an improved balance of impact strength, stiffness, and heat resistance, as well as reduced variability of physical properties.